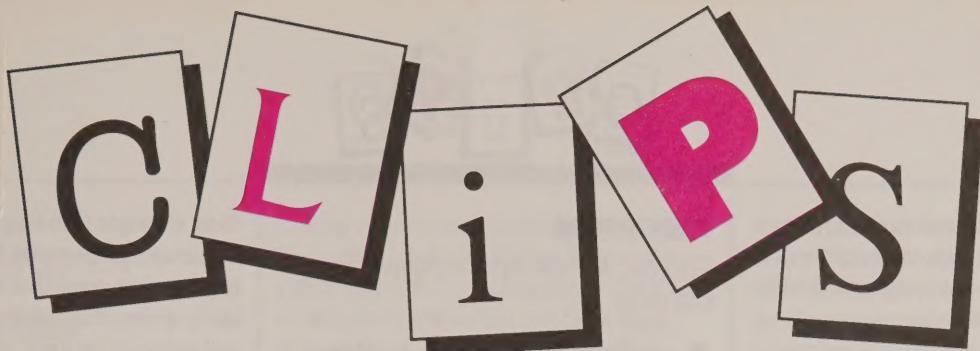


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Number Three

March 1991

Bulletin of the Department of the Secretary of State of Canada on Education-Related Activities of the Federal Government

Multiculturalism and Citizenship Canada

Assessing literacy skills

Canadians are faced with a variety of reading, writing and numeracy demands in their daily lives. In fact, one out of three adults in Canada has some difficulty dealing with everyday reading and numeracy tasks requiring the use of common printed material — for example, determining the correct dosage of medication indicated on a medicine label or filling in a bank deposit slip.

This was one of the findings of the *Survey of Literacy Skills Used in Daily Activities*, an in-home survey of 9,500 people between the ages of 16 and 69,

which was conducted by Statistics Canada in October 1989 for the National Literacy Secretariat. The purpose of the survey was to assess directly the functional reading, writing and numeracy skills of Canadians in English or French. It complemented the study sponsored in 1987 by Southam Incorporated, a Canadian newspaper chain, to determine the extent of illiteracy in the country.

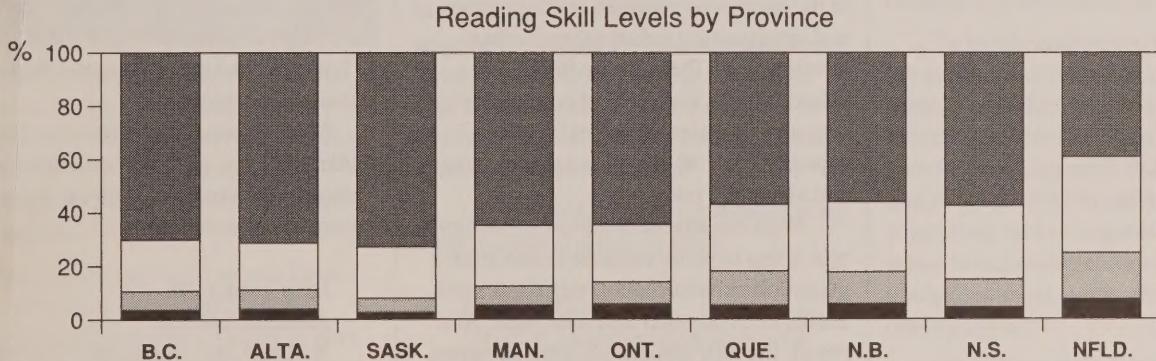
In the past, when people spoke of literacy, they tended to split the population into "literates" and "illiterates," thereby setting up stereotypes. It seems more appropriate to view literacy as a continuous learning process with points along the continuum indicating different levels of functioning.

For this new survey, Canadians were grouped into various reading and numeracy skill levels from which certain conclusions could be drawn. It was found, for

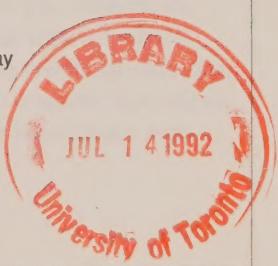
example, that men and women have basically the same reading and numeracy skill profiles; that Canadians between the ages of 16 and 44 generally have better reading skills than those 45 to 69 years of age; and that Canadians between the ages of 25 and 44 generally have better numeracy skills than those aged 16 to 24 and 45 to 69.



These results, and many others (including some briefer results about writing skills) provide a database on the state of adult literacy in this country. This



- Level 4 Capable of reading in a great variety of tasks and situations.
- Level 3 Able to use reading materials in a variety of situations if the material is clear and the task simple: say they don't have much difficulty but avoid situations where reading is required.
- ▨ Level 2 Able to use printed materials for simple tasks: many admit having difficulty reading.
- Level 1 People having great difficulty with printed materials: many admit they cannot read.
- P.E.I.: Sample too small to be representative.



database will help the government to chart its directions on this important matter now and into the future — in co-operation with other literacy partners.

Copies of the selected survey highlights have already been distributed to federal departments and agencies, as well as to provincial authorities, national and provincial literacy groups, specialists in the field, the media and foreign organizations and international agencies. Copies have also been sent to school boards, universities and individuals, and various organizations upon request. This flow of information is continuing. It is hoped that recipients will further disseminate these results as widely as possible in order to increase public awareness about literacy.

To obtain copy of the releases regarding reading, writing and numeracy skills, or additional information about the survey, please contact:

Tom Brecher
Senior Research Analyst
Policy, Research and Co-ordination
National Literacy Secretariat
Multiculturalism and Citizenship
Canada
Ottawa, Ontario K1A 0M5
Telephone: (819) 953-5283



Energy, Mines and Resources Canada

A mirror of Canadian development: the National Atlas

Do you want to know the extent of Canada's telecommunications network? The number of pulp and paper mills across the country? The location of farm land *a mari usque ad mare*?

The answers to these questions can be found in the *National Atlas of Canada*, which has faithfully reflected the changing nature of our vast country since 1906.

The Geographical Services Division of Energy, Mines and Resources Canada is currently preparing the fifth edition of the National Atlas, which differs significantly from previous editions.

A cursory glance at its evolution reveals that the first and second editions of the Atlas, produced in 1906 and 1915, devoted a great deal of space to transportation and communications, which were just starting to develop. The third edition, published in 1957, was the first to appear in loose-leaf format; it also became the country's first real National Atlas, describing all of the economic activities of the country and emphasizing industrial and urban development. The fourth edition, published in 1974, highlighted environmental and socio-economic concerns using approximately 40 tables, graphs and texts and about 300 maps.

With the advent of advanced technology, it has become possible to modernize geographical information techniques and establish a computerized data bank. As a result, the fifth edition has been designed as a series of separate but related maps, which together cover all aspects of Canada's geography, history, environment and socio-economic development. More maps will be added as new data are acquired using the computerized system.

The fifth edition has a wide variety of users. Government authorities use it in

their strategic planning. For example, the Geographical Services Division is currently preparing maps that show Aboriginal lands across the country. These maps will naturally be used by the government in negotiations with the Aboriginal community.



Educators also use the maps for school projects, and researchers and specialists use them to produce papers or to give presentations at conferences and symposiums.

In addition to the fifth edition of the Atlas, the Geographical Services Division has prepared collections of maps dealing with transportation networks, wetlands and the territorial evolution of Canada since Confederation. It is currently developing products in digital form, such as a database of 450,000 geographical names, base maps at scales of 1/2,000,000 and 1/7,500,000 and other thematic data on Canada as a whole.

Many other publications are also available. If you wish to obtain copies, exchange information or obtain more information, please contact:

John Thompson
Assistant Director
National Atlas Information Service
Geographical Services Division
Canada Centre for Mapping
Energy, Mines and Resources Canada
Ottawa, Ontario K1A 0A9
Telephone: (613) 992-4030

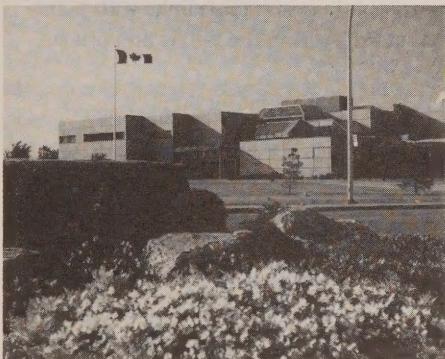


Communications Canada

Toward better management of office automation

The quality of life in the workplace is a factor that must be increasingly taken into account if we are to avoid being overwhelmed by office automation. We must learn to manage automation to ensure that it meets our needs.

The main task of the Canadian Workplace Automation Research Centre (CWARC), created in 1985 by the Department of Communications, is to study all aspects of new technology, such as electronic information distribution, systems integration and artificial intelligence.



This "research laboratory" does not operate on its own. It has clients in the public, private and academic sectors who are concerned with the effects of new technology on their employees and their organizations.

The Organizational Research Directorate, which is a part of the CWARC, undertakes projects with a variety of partners to measure the scope of informatics resources and facilitate their implementation within organizations. It is currently involved in a number of projects in a variety of fields.

For example, researchers at the Directorate have developed a process to assess the effect of automation on jobs and

human resources, in collaboration with Université Laval, the City of Joliette, the Office des ressources humaines of the Government of Québec and the Cégep Montmorency. Results of the studies conducted at these research sites benefit these organizations and also help to establish models for similar organizations. The objective is to give participants the opportunity to assess the effect of technological changes on their own infrastructures, by identifying trends in terms of job types and categories, and developing measurement and management tools adapted to their needs.

The Directorate is also operating a training project. In addition, it has conducted an analysis, in conjunction with a private company, of the different automated training programs at the federal level and improvements that could be made in the field. For example, it is attempting to assess the significance of distance training and study the use of software better adapted for this application. Federal government employees responsible for public service training should benefit from the results of this process.

Another of the Directorate's projects that will benefit the Canadian public service involves the development of an intelligent tutoring system. It is designed to enable users, primarily trainers, to acquire knowledge and skills in teaching assessment, knowledge representation, interactive teaching and evaluation of the results of tutorial interventions based on diagnosis of their students.

If you would like more information on these activities, please contact:

Jocelyne Picot
Director, Organizational Research
Canadian Workplace Automation
Research Centre
1575 Chomedey Boulevard
Laval, Québec H7X 2X2
Telephone: (514) 682-3400

The CWARC publishes the results of the activities it is pursuing with its partners. The publications can be consulted at the Centre or mailed on request. Persons interested in obtaining the publications can contact the Director General's Office at the address or phone number given above.



Canadian International Development Agency

International development awareness

As a new decade begins, we are witnessing immense upheavals in the world. On one side of the earth reconciliation is being pursued; on the other wars are breaking out. The entire planet is grappling with increasingly complex economic, environmental, health and other problems. We cannot remain indifferent to the situation, because the fate of each country is tied to that of all the others.

To better understand the stakes and the problems of international development, more education is needed. This is exactly what the Canadian International Development Agency's Public Participation Program (PPP) makes possible, by supporting various organizations that are active in increasing the awareness of Canadians about sustainable world development.

One of the major components of the PPP is the Development Education Program, implemented in co-operation with the main players in the education field, in particular the provincial education departments and the teachers' federations. They are involved in organizing a wide

range of professional development activities such as seminars, symposiums, group discussions, newsletters, videos and study centres. The educational process is aimed primarily at Canadian elementary and secondary school teachers.

For example, the Alberta Teachers' Federation received funding for a three-day conference involving 75 workshops for roughly 700 teachers and 80 students to discuss international education. The Canadian School Boards' Association produced a guide for Canadian teachers entitled *The World*, which discusses the preparation of teaching material on development education.

The Development Education Program provides grants and contributions to eligible Canadian non-governmental organizations (NGOs) and non-governmental institutions (NGIs) under various matching formulas. In 1989-90, seven organizations, including the Centrale de l'enseignement du Québec, the Association des enseignantes et des enseignants francophones du Nouveau-Brunswick and its Anglophone counterpart, the New Brunswick Teachers' Association, shared approximately \$6 million to carry out their respective projects.

For further information on the Development Education Program, contact:

Louise Sutcliffe
Program Officer
Public Participation Program
Special Programs Branch
Canadian International
Development Agency
Hull, Québec K1A 0G5
Telephone: (819) 994-6135

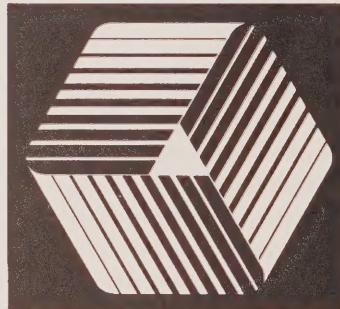


Social Sciences and Humanities Research Council

Support for research on education and work

As we all know, the labour market is in constant flux. Change means adjustment, which presupposes ongoing training. The educational system and institutions responsible for providing training must constantly re-evaluate their role in this regard; to do so, they must have a better understanding of the relation between education and work.

"Education and Work in a Changing Society" is one of the five themes that make up the Strategic Grants Program launched by the Social Sciences and Humanities Research Council of Canada in 1979.



The "Education and Work" program has three goals. It is intended to lead to a better definition of the relation between education and work, both at the level of the individual and the group. It is also intended to help develop a greater understanding of the perceptions and attitudes of parents, students, employers, educators and others. Finally, it seeks to encourage research that can be used as a basis for policy development or strategy formulation in universities, colleges, governments or business organizations.

The main beneficiaries of the grant program are groups of researchers who undertake multidisciplinary research. However, applications from individual researchers will also be considered if several disciplines are involved.

Support is provided in several forms. Strategic research grants of up to \$100,000 for one year or \$250,000 for three years are available. Up to \$40,000 annually is awarded to set up multidisciplinary networks of researchers engaged in collaborative research activities. Up to \$15,000 is provided to organize strategic research workshops to discuss research results, examine particular research topics, delineate research questions and needs or elaborate a methodology. (Up to three workshops can be conducted over a three-year period). Three times a year, in January, April and July, strategic partnership development grants are awarded to help groups of researchers establish links with potential partners from the public and private sectors.

For further information, contact:

Julie Dompierre
Program Officer
Strategic Grants Division
Social Sciences and Humanities
Research Council
P.O. Box 1610, Station B
Ottawa, Ontario K1P 6G4
Telephone: (613) 992-4227



Statistics Canada

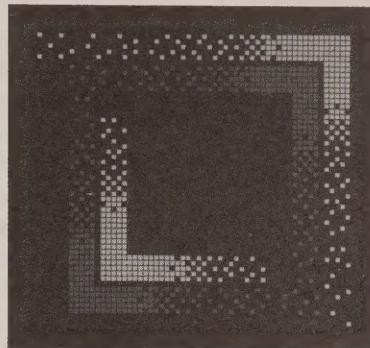
Education and work: how close is the connection?

One out of four working people in Canada intends to go back to school. The reasons are varied: 29 per cent wish to better prepare themselves for their first career, 33 per cent want to improve their professional development, 10 per cent are simply looking for a change in direction and 10 per cent wish to improve their financial situation. A mere 15 per cent stated that they hoped to continue their studies mainly because the discipline or subject matter interested them.

These data came out of Cycle 4 entitled *Education and Work* of the General Social Survey, initiated by Statistics Canada in 1985. The General Social Survey attempts to monitor changes in Canadian society over a five-year period and to provide information on specific issues of current or emerging interest. In keeping with this goal, the three cycles preceding this one concentrated respectively on health and lifestyle; the daily activities of Canadians; and the number of accident and crime victims and the services offered to them. The Cycle 5 survey concentrates on family and friends.

Cycle 4 deals with three main themes: work and education, new technologies and human resources, and new trends in the areas of education and work. A small part of the questionnaire relates to science and technology.

Carried out in January and February 1989, the survey collected information on the level of education attained, intentions of returning to school, work experience, and science and technology. Thus, 9,338 people 15 years of age or older from all 10 Canadian provinces were interviewed and replied to the questionnaire. The response rate was over 80 per cent.



It is now possible to obtain free of charge a copy of the questionnaires used in the survey; the provisional data, presented primarily in the form of tables and charts; and the working documents relating to the design of the survey. The micro-data files and supporting documentation for the first four cycles can also be obtained at a cost of \$750 each. In summer 1991, the first official publication entitled *Education, Work, Computers and Retirement: Challenges for the 90's* will be available for sale for \$40.

For more information, please contact:

Ghislaine Villeneuve
General Social Survey Project
Housing, Family and Social
Statistics Division
Statistics Canada
Ottawa, Ontario K1A 0T6
Telephone: (613) 951-4995



National Defence

Education in the military style

The Canadian Armed Forces is highly visible on the international scenes at the present time. However, little is known about how the Canadian Forces trains future officers. Military training is one of the many components of the programs of study at the Canadian Military Colleges (CMC).

Canada has three military colleges. The first, Royal Military College (RMC), was established at Kingston, Ontario, in 1876. The second, Royal Roads Military College (RRMC), was opened at Hatley Park in Victoria, British Columbia, in 1942. Ten years later, Collège militaire royal de St-Jean (CMR) opened its doors in Saint-Jean-sur-Richelieu, Québec.



To be accepted at one of the CMCs, candidates must enrol in the Regular Officer Training Plan (ROTP) or the Reserve Entry Training Plan (RETP). The ROTP is for young Canadians, men and women, who want to serve in the regular component of the Armed Forces. ROTP students receive a university education and a monthly salary as an officer cadet in the forces. In addition, the costs associated with their university program are paid by the Department of National Defence. In return, officer cadets make a commitment to serve as officers in the Armed Forces for a minimum of five years. The RETP offers the same military and university training as the ROTP, but with no commitment to serve in the forces, and RETP students must pay the full cost of their

university education. As most courses are offered in both official languages, bilingualism is not a prerequisite for these programs.

Students in both programs can obtain a bachelor's degree in arts, science, engineering or administration. They can also broaden their education by taking courses in the humanities, for science and engineering majors, or in science and mathematics, for arts and administration majors. After receiving a commission as an officer in the Canadian Forces, graduates can continue their studies in selected post-graduate programs.

Throughout their university studies, officer cadets undergo training in their second language, leadership, general service knowledge, sports and physical education. Many cultural, recreational and social activities are also offered.

About 1,520 students, of whom 17 per cent are women, attend the CMCs each year. Some 500 new cadets are enrolled each year and, on average, about 200 obtain their degrees. The combined teaching faculty of the CMCs is about 360 strong: 160 at RMC, 60 at RRMC and 140 at CMR.

Further information may be obtained from any Canadian Forces Recruiting Centre, at the address listed in the Yellow Pages under *Recruiting*.



The Canada Council

Literary activities in universities

Canadian writing can be promoted in several ways, and colleges and universities have an important role to play in this respect.

The Writing and Publishing Section of the Canada Council has developed initiatives whereby universities and colleges can invite Canadian writers to spend time in residence, to the benefit of students as well as the general public.



The Public Readings by Canadian Writers in Canada Program is intended to increase the public's knowledge and appreciation of Canadian writing and to provide opportunities for writers to reach a larger audience. Organizations such as post-secondary institutions, libraries, literary associations, museums, art galleries and community centres may apply for assistance in inviting Canadian writers to read from their works and discuss them with the public. Council support consists of a \$200 reading fee for individual writers and reimbursement of travel expenses up to a maximum of \$400. For joint readings, each participating writer receives a fee of \$100 per reading and a maximum of \$300 for travel expenses. All other expenses (publicity, costs of administering the readings, and the writer's meals and accommodation) are the responsibility of the host organization. Post-secondary institutions and other participating organizations may apply for up to four individual readings or eight joint readings per year (November 1

to October 31), but the same writer may be invited only once a year.

The Short-Term Writers-in-Residence Program is designed to enable post-secondary institutions and other organizations to invite Canadian writers to spend four to six days in residence. During the residency, the writers are available for interviews, public or manuscript readings, speeches and informal or formal discussions. Participating organizations may apply for support for one residency per year (April 1 to March 31). The writer receives \$200 per day during the residency. The Canada Council pays \$125 per day, plus the writer's travel expenses. The local sponsor pays \$75 per day and assumes responsibility for the writer's meal, accommodation and publicity costs.

For further information, contact:

Diane Ally
Writing and Publishing Section
The Canada Council
P.O. Box 1047
Ottawa, Ontario K1P 5V8
Telephone: (613) 598-4335

Under the Writers-in-Residence Program, universities or colleges may invite a writer to spend one academic year or one term in residence with them. During the period of residence, the writer is free to pursue a writing project and therefore does not teach. However, the writer must be available to meet and consult with writers and students and to participate in workshops and seminars. The Canada Council provides 50 per cent of the writer's stipend. This amount may change from year to year, depending on the funds available from the Program. The host organization assumes at least 50 per cent of the stipend, as well as travel expenses, and must provide office facilities. If the appointment is for a single term, the Council's contribution is reduced accordingly.

For additional information, contact Katharine Benzekri at (613) 598-4369, or at the address given above.



National Research Council
Canada

Scientific information at one's fingertips

How can one consult the largest collection of scientific and technical literature in North America?

The answer is simple: by contacting the Canada Institute for Scientific and Technical Information (CISTI) of the National Research Council Canada.

Its extensive collection contains over 500,000 books and proceedings of scientific conferences, over 50,000 periodicals in engineering, medicine and high technology, and two million technical reports on microform. They are all accessible through the Document Delivery Service.

The Reference and Referral Services section provides assistance to those who need information quickly and do not have the resources required to carry out their own research. References can be provided on topics as specific as the life cycle of the mosquito or the address of the Robotics Industry Association.

NRC-CNR

And CISTI has much more to offer. An on-line information retrieval system known as CAN/OLE enables clients to order, by computer, any document they need from one of Canada's major libraries. This system offers over 40 databases, primarily in the fields of physical sciences, engineering and materials, natural sciences, agriculture and food.

Mention must also be made of the Canadian Selective Dissemination of Information Service or CAN/SDI, which keeps clients up-to-date on the most recently published scientific and technical information. CISTI's information specialists construct a subject profile that best fits the client's needs. The computer then scans the databases selected to extract references related to the client's special interest, and lists of the latest references on the topics chosen are sent.

CISTI also has a Health Sciences Resource Centre, which provides access to the world's biomedical information. This service is especially appreciated by physicians, nurses, hospital administrators, medical librarians and many others working in related professions.

New research tools are now available in the form of scientific numeric databases in the life sciences and physical sciences. These are highly specialized tools used by scientific researchers around the world.

For further information, contact:

Elizabeth Katz
Chief, Publicity and Communication
Canada Institute for Scientific and
Technical Information
National Research Council Canada
Ottawa, Ontario K1A 0S2
Telephone: (613) 993-3854

CLIPS

Consumer and Corporate Affairs
Canada

On the leading edge of technology

We can keep abreast of the latest developments in technology by glancing through specialized journals, by participating in conferences that bring together the most renowned experts — or by looking at patent documents.



Does this surprise you? Actually, patents are essential resources for those who wish to keep up with technological progress. Each document contains a brief description of a particular technology; the history of a problem and the way in which the new invention can overcome it, a detailed description of the means by which the invention is produced and the dangers that can result from misuse. The document also provides the name and address of the patent holder and the other parties involved, thus facilitating contacts leading to eventual use of the invention.

Where can these documents be accessed? At the Patent Office in Phase 1 of Place du Portage in Hull, Québec. This unit is part of the Intellectual Property Directorate, which comes under the Department of Consumer and Corporate Affairs.

The archives of the Patent Office contain the most extensive documentation in Canada in the area of technical information. More than a million Canadian patents are classified according to a system that includes more than 350 subject classes and over 35,000 sub-classes. Someone wishing to research the class of "optics," for example, could consult the following categories: "holography," "reflectors," "refractors," etc.

The Patent Office also provides access to about five million American patents classified under a similar system. One more way to facilitate research is to call upon the staff of the Technological Information Services Division of the Patent Office.

The Patent Office is open to the public, and also provides information to Canadian industries, universities and research centres. Such information is invaluable to the parties concerned. For example, researchers in the applied sciences who consult the Office not only avoid unnecessary expenses related to research on technologies that already exist, but they can also find ready-made solutions for whatever technical problems may arise.

Public and private funding organizations can also benefit enormously from these documents, especially by familiarizing themselves with the broad range of scientific and technical activities they encompass. These organizations can thus avoid funding research that has already been done or projects that seem promising but rely on obsolete technology.

Would you like to know more? If so, please write or phone:

Ed Rymek
Information and Technology
Exploitation Branch
Intellectual Property Directorate
Consumer and Corporate Affairs
Canada
Ottawa, Ontario K1A 0C9
Telephone: (819) 994-4775

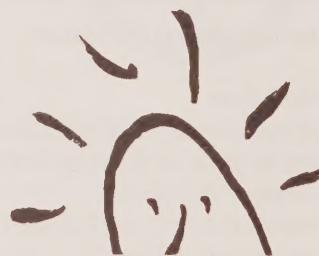


Employment and Immigration Canada

The Stay-in-School initiative

Every year, 100,000 young Canadians leave high school before they graduate. If the national drop-out rate stays at its present level of some 30%, by the year 2000, as many as one million under-educated, untrained youth will have entered the labour market.

In response to this alarming fact, the Government of Canada, in February 1990, announced a \$296.4 million four-year project. This national school retention project, called *Stay-in-School*, is being delivered by Employment and Immigration Canada (EIC) under the responsibility of the Minister of State for Youth, Marcel Danis.



STAY IN SCHOOL

L'ÉCOLE AVANT TOUT

The initiative includes three components: labour market programs and services for at-risk youth; mobilization of stakeholders to develop solutions; and public awareness and information activities.

In the past few months, there have been a number of activities undertaken in support of the *Stay-in-School* initiative. They include, among other things, a major business-education conference, a new research and development project in the area of career counselling and the development of a new program option to fund school retention projects.

This new program option, named START, allows qualified organizations to obtain funding support for a variety of interventions aimed at youth at-risk. It is funded under the Job Entry program of the Canadian Jobs Strategy and is administered via EIC regional offices in each province. For example, START allows organizations to identify young people who are most likely to drop out of school, to provide information on career projects and the labour market, and to accomplish work experimentation projects.

All Canadians need to become more informed about the drop-out problem and its consequences. With this in mind, the federal government is developing a multi-faceted national information and awareness campaign aimed at young people, their parents, business, educators, community groups and the general public.

Initiating and expanding labour market programs and services is just one way of encouraging young people to stay in school. Over the next four years, the federal government, in consultation with provincial and territorial officials, will be working closely with business, labour, educators, social service agencies, parents and students to help improve the crucial links between education and the labour market, and to encourage young people to stay in school.

Finding solutions to the drop-out problem will require the collaborative efforts of many different groups at the national, regional and local levels.

For further information on these activities, please contact:

Claude Décarie
Director, Liaison and Coordination
Youth Affairs Branch
Employment and Immigration Canada
Ottawa, Ontario K1A 0J9
Telephone: (819) 953-2476



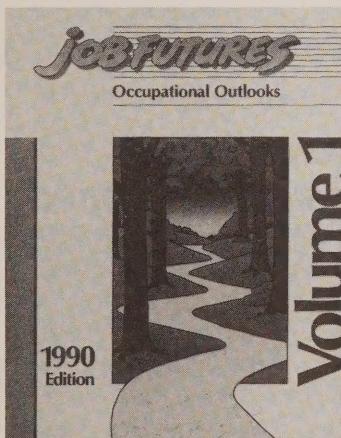
Employment and Immigration Canada

Job futures

How many electrical engineers or laboratory researchers will be needed in the years to come? Will demand soar or drop? Unless you are an expert in making predictions, you will have trouble developing an accurate picture of what could be coming.

Fortunately, the Canadian Occupational Projection System (COPS) has done it for you. This System, operated by Employment and Immigration Canada, acts like a "barometer" of the labour market by presenting an overview of existing occupations and projecting supply and demand trends for several years into the future.

How does COPS obtain such data? It draws information and intelligence from a variety of sources such as federal and provincial governments, industry, labour unions, training institutions and other organizations. COPS then integrates these data to produce estimates of national occupational supply and demand trends.



This is the type of information contained in *Job Futures*, a two-volume publication issued by Employment and Immigration Canada. Volume 1 presents the occupational outlooks for various areas of activity. For each occupation, details are given regarding such items as historical trends and projected job openings, the male-female ratio, geographic distribution,

age distribution, number of full-time and part-time jobs and main industries of employment.

Volume 2 deals more specifically with trends and projections relating to graduates of post-secondary education institutions by level and area of study. Information is given on the number of students who have graduated since 1981, the number of women graduates and the activities of graduates after completing their program of study.

In general, the publication endeavours to assist students or others in choosing a career by providing them with all of the relevant information. Information on ordering *Job Futures* may be obtained from:

Wayne Roth
Director
Labour Market Outlook and
Structural Analysis
Employment and Immigration Canada
Ottawa, Ontario K1A 0J9
Telephone: (819) 994-4546



Science and Technology Canada, the Program funds projects and activities to increase public awareness and appreciation of science and technology. The kinds of activities funded include science fairs, children's books, summer science camps, videos, television and radio series, travelling exhibits, workshops and seminars.



Industry, Science and Technology

Science: Tell me about it!

If you asked a young student to describe a typical scientist, you would probably get an image of someone dressed in white, toiling away among a forest of apothecary's equipment and distilling vile but colourful liquids. Modern scientists, however, wear wet suits and space suits as often as they wear lab coats.

The Science Culture Canada (SCC) Program was set up to help make the world of science more accessible to Canadians, especially young people. Administered by Supply and Services Canada, under the direction of a management committee chaired by Industry,

Projects funded in a recent competition include *Messages in Stone*, a new film about the life and death of dinosaurs based in part on Canadian fossil research. The film will use 3-D animation to bring dinosaurs to life and follow them on a 400-mile journey to a summer feeding range in central Alberta. At the Newfoundland Freshwater Resource Centre in St. John's, visitors can view marine life from a new perspective. Along with interactive exhibits, a discovery room and wet lab, the Centre features a world-class fluvarium with an under-the-stream viewing window. At the Centre Aerospace Amateur in Rosemère, Québec, children can live the space adventure while learning about the science and engineering involved in space exploration. The Centre places special emphasis on Canada's role in space.

The Program administers a budget of \$2.5 million; funding is allocated as follows.

- Funding for projects and activities of less than one year's duration: Applicants may submit only one proposal. Applications are reviewed semi-annually; the deadlines are April 15 and October 15.

- General core funding, for long-term projects and activities of up to three years' duration: Core funding is provided to organizations whose primary mandate is promoting public awareness of science and technology. Applications are reviewed annually; the deadline is April 15.
- Youth core funding allocated on the same basis as general core funding: The main purpose, however, is to create and maintain interest in science and technology among young Canadians and to make them aware of issues in these fields.

Applications must be made by formally constituted Canadian organizations or by individuals sponsored by or affiliated with such organizations. For example, education institutions, publishers, associations and non-profit organizations are eligible. Applicants are encouraged to obtain funding from sources other than the Science Culture Canada Program.

For more information on conditions for funding or guidelines for preparing applications, contact:

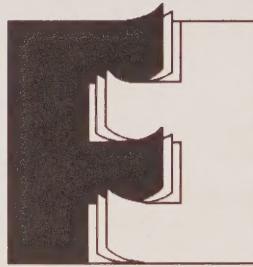
Michael Straus
Program Officer
Science Culture Canada Program
Science Programs Branch
Supply and Services Canada
Ottawa, Ontario K1A 0S5
Telephone: (819) 956-1772



External Affairs and International Trade

Canadian-American exchanges

Bilateral relations with our neighbours to the south count for a lot when it comes to education. Such relations will be enhanced even further by a new exchange program for Canadian university professors.



The Fulbright Program is administered by the Foundation for Educational Exchange between Canada and the United States of America, which has received \$227,000 from Canada's Department of External Affairs and International Trade for scholarship awards and program development and administration.

Under the Program, which began this year, university professors are eligible for grants of up to approximately \$25,000 to teach or conduct research in a U.S. university of their choice for three months to a year.

The goals of the program are to enhance Canadian and American Studies in universities in both countries, and to encourage and promote research in the many disciplines pertaining to Canadian-American relations. Included are geography, history, literature, sociology, law, philosophy, political science, the arts, economics, communication and international relations.

Eligibility requirements are: Canadian citizenship at the time of application, and a doctorate or proof of equivalent professional qualifications (e.g., the practice of law). Those wishing to teach under the Program must have post-doctoral college or university teaching experience.

Interested candidates are encouraged to establish preliminary contacts with the U.S. university or college of their choice, especially if they propose to teach under the Program. Include with the application any documentation pertaining to such initiatives, for instance, a letter of invitation from the chosen institution.

Interested candidates should contact:

Foundation for Educational Exchange
between Canada and the
United States of America
29 Beechwood Avenue
3rd Floor
Ottawa, Ontario K1M 1M2
Telephone: (613) 746-3324



Statistics Canada

International students in Canada

Last November, Statistics Canada published statistics on international students in Canada for the 1989-90 academic year. This publication, entitled International Student Participation in Canadian Education — 1989, is the third in the series. First issued in 1988, it provides every year a variety of information on international students in Canada.

Details are given on their country of origin and distribution by level, field of study and sex. Separate sections cover

recipients of Canadian Official Development Assistance and historical data going back to 1975.

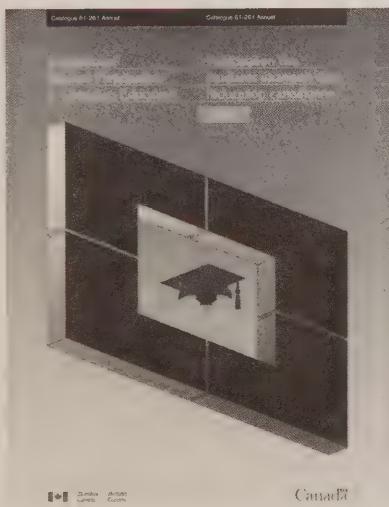
The number of international students in Canada, which reached a peak of 64,799 in 1982, subsequently fell to 52,398 in 1986, the lowest level in the decade. The up-turn which began in 1987 intensified in 1988. In 1989, a new gain of 14 per cent was recorded, bringing the number of international students to an unprecedented level of 70,891.

In preparing this publication, Statistics Canada obtained professional assistance from Employment and Immigration Canada, the Canadian International Development Agency, External Affairs Canada and the Department of the Secretary of State, the latter three also providing financial support for the project.

Copies of the publication may be purchased from authorized agents or by mail order to:

Publication Sales
Statistics Canada
Ottawa, Ontario K1A 0T6
Telephone: 1-800-267-6677
(toll-free in Canada)
Fax: (613) 951-1584

Price: Canada: \$20
United States: US \$24
Other countries: US \$28



Multiculturalism and Citizenship Canada

More of a welcome than a test

Thousands of immigrants, anxious to settle here, cross our borders each year. As host country, we have a responsibility to assist these newcomers, inform them of their rights and responsibilities, and encourage them to participate fully in their new society.



To help better welcome these newcomers, the Citizenship Registration and Promotion Branch of Multiculturalism and Citizenship Canada has introduced an information kit designed for people who work with adult immigrants. More of a Welcome than a Test contains a wealth of information on all aspects of Canadian citizenship, ranging from the different steps involved in becoming a Canadian citizen to the values, skills and knowledge required for citizen participation. Although focused on class room work, the kit is a useful tool in community and other settings as well.

The development of the kit is in keeping with the federal government's mandate to promote the values associated with Canadian citizenship, and to administer the Citizenship Act.

This document, available in both official languages, is contained in a handy binder and includes the following material:

- a directory of citizenship instruction programs and services;

- a teacher's guide for use in teaching citizenship to adult immigrants;
- information about the Citizenship Registration and Promotion Branch; and
- a list of publications for newcomers.

The kit is available free of charge, and as it is a pilot project, your comments are welcomed. Please write or telephone:

Citizenship Registration and
Promotion Branch
Multiculturalism and Citizenship
Canada
Ottawa, Ontario K1A 0M5
Telephone: (819) 994-2629



Department of the Secretary of State of Canada

Learning About Canada

The Canadian Studies Directorate was created in 1984 to encourage Canadians to learn more about Canada. Through its funding programs for the development of a wide variety of learning materials about



Canada, and through its publications, the Directorate works to provide Canadians with new information about their country and themselves.

For further information on the Canadian Studies funding programs or free publications please contact:

Canadian Studies Directorate
Department of the Secretary of State
of Canada
Ottawa, Ontario K1A 0M5
Telephone: (819) 994-1544



CLIPS

is published from time to time and provides its readers with factual information on federal government activities related to the field of education, either directly or indirectly. The newsletter is distributed to federal departments and agencies, and in the education milieu generally.

Our objective is twofold: to address an obvious need for more information about education-related activities at the federal level, and to help establish new lines of communication between those interested in education, whether they be public servants, teachers, students, administrators in universities, colleges or business.

I invite comments and suggestions from our readers so that we may better respond to your needs.

*Gilles Jasmin
Director of Publication*

CLIPS

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If you are not on this list and would like to receive CLIPS, please fill out the form below and send it to the following address:

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K1A 0M5
Telephone: (819) 953-5673

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75000	01 45 56 73	Paris	Île-de-France	CLIPS est gratuit. Les personnes et organismes déjà inscrits sur la liste de l'éducation Recherche et Promotion CLIPS

Abonnement

A detailed botanical line drawing of a flowering plant. The central feature is a long, slender stem that branches into several smaller, more robust branches. At the very base of the stem, there is a dense, fan-shaped cluster of small, delicate flowers or leaves. The entire plant is enclosed within a rectangular border.

Notre objectif est double : combler un
intervalle entre deux domaines généraux de l'éduca-
tion, directement ou indirectement. Le bul-
letin est diffusé dans les ministères et orga-
nismes fédéraux, mais également dans tous
les milieux intéressés à l'éducation.
Notre objectif est double : combler un
nouveau lens entre tous ceux et celles qui
s'intéressent à l'éducation, qu'ils soient fonc-
tionnaires, enseignants, étudiants ou
tritigéants d'université, de collège ou
d'entreprise.

J'inviter les lecteurs à nous commu-
niquer leurs commentaires afin que, dans
les numéros subséquents, nous puissions
épouser leurs méthodes encore aux autres.

Gilles Jasmin

Directeur de la publication

CLIPS CLIPS

A decorative graphic featuring five large, stylized letters (S, P, I, L, C) arranged in a slightly overlapping, horizontal row. The letters are white with black outlines, except for the letter 'P' which is pink.

La Direction des études canadiennes a été créée en 1984 afin d'encourager les Canadiennes à mieux connaître leur pays. Par le biais de ses programmes de finance-ment pour l'élaboration de matériel didac-tique varié sur le Canada et au moyen de

Découvrir le Canada

Secrétariat d'État du Canada



Énergie et Promotion de la
citoyenneté
Multiculturalisme et Citoyenneté
Canada
Ottawa (Ontario) K1A 0M5
Téléphone : (613) 994-2629

Il est non seulement possible de se procurer gratuitement cet ouvrage mais aussi de formuler des commentaires sur son contenu, car il s'agit d'un projet pilote. Pour ce faire, on peut donc s'adresser à :

- **général.** *Le laboratoire de cette trousse va de pair avec le mandat du gouvernement fédéral consistant à promouvoir les valeurs et pratiques à la citoyenneté canadienne et à administrer la Loi sur la citoyenneté. Le document est disponible dans les deux langues officielles, se présente dans un répertoire de programmes et services dans le domaine de l'Instruction civique.*
 - **un guide du formateur pour les cours civiques.** *Un guide du formateur pour les cours de préparation à la citoyenneté à l'intention des renseignements sur la Direction générale de l'enseignement et de la promotion de la citoyenneté.*
 - **l'information des immigrants adultes.** *Des renseignements sur la Direction générale de l'enseignement et de la promotion de la citoyenneté.*
 - **les nouveaux arrivants.** *Une liste des publications intéressantes.*

acquises pour mieux s'intégrer à la société. Bien que conçue pour le travail en classe d'accueil, cette trousse peut s'avérer égale-ment un outil très utile dans d'autres lieux de réunions et dans la communauté en- de réunions et dans la communauté en-



Des milliers d'immigrants franchissent nos frontières chaque année, dès lors qu'ils établissent chez nous. En tant que pays d'accueil, notre devoir consiste à leur faciliter la tâche en les informant de leurs droits et de leurs devoirs et en les encourageant à participer pleinement à la vie de notre société.

Une question d'accueil !

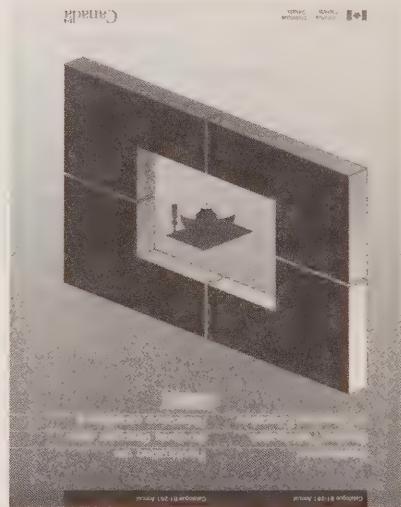
Multiculturalisme et Citoyenneté



Secrétariat des services des publications
Statistique Canada
Ottawa (Ontario) K1A 0T6
Téléphone : 1-800-267-6677
(sans frais au Canada)
Bellmopan : (613) 951-1584
Prix : Canada : 20 \$ (CAN)
États-Unis : 24 \$ (US)
Autres pays : 28 \$ (US)

Le nombre d'étudiants étrangers au Canada, qui avait atteint un sommet de 64,799 en 1982, avait décliné par la suite de 66 799 en 1986, avec 52,398 étudiants. Cette tendance à la baisse s'est inversée depuis 1986, avec 52,398 étudiants. Pour atteindre son plus bas niveau de la décennie en 1986, avec 52,398 étudiants. Ces tendances à la baisse s'est inversée encore jamais atteint de 70,891. Statistique Canada s'est assuré la collabo- ration professionnelle d'Emploi et Immigration Canada, de l'Agence cana- dienne de développement international, ces trois dernières ministères ont également fourni un appui financier au projet.

Des exemplaires de la publication peuvent être achetés auprès des agents autoires, ou en écrivant à :



une juste idée de la situation des étudiants étrangers au Canada. Les étudiants étrangers de toutes nationalités ont été interrogés sur les difficultés qu'ils rencontrent dans leur étude au Canada. L'ouvrage décrit les étudiants étrangers à leur pays d'origine et leur géres qu'au Canada. On présente une analyse séparée par sexe. On y présente une analyse séparée des bénéficiaires de l'Aide publique canadienne au développement ainsi que des dommages historiques.



En novembre dernier, Statistique Canada a publié des statistiques relatives aux étrangers au Canada pour l'année scolaire 1989-1990. Ces statistiques, intitulées *Participation des étudiants étrangers à l'éducation canadienne — 1989*, sont la troisième sur le sujet. Publiée pour la première fois en 1988, elle permet aux inter-

Les étudiants étrangers au Canada

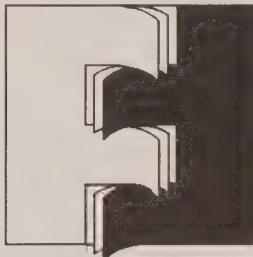
Statistique Canada

La Fondation pour les échanges éducatifs entre le Canada et les Etats-Unis 29, avenue Beechwood 3, étagé Ottawa (Ontario) K1M 1M2 Téléphone : (613) 746-3324

1) *Économie, les communautés et les relations internationales.*
Les conditions d'admissibilité sont

See also [Saxifrage](#) and [Saxifrage](#) (botanical)

Il sagitt du programme Ruhingita qui est admisste par la Foundation pour les échanges entre le Canada et les Etats-Unis dans le domaine de l'éducation. Cet orga- nisme a reçu du ministre des Affaires éxterieures et du commerce extérieur Canada la somme de 227 000 \$ pour l'administra- tion de bourses d'études ainsi que pour l'administration et l'administration du



Les relations bilatérales avec nos voisins du Sud comprennent pour beaucoup dans le domaine de l'éducation. Or, elles concernent tout desormais un plus grand essor grâce à l'artiste, sur la scène canadienne, d'un nouveau programme d'échange à l'internation des enseignants universitaires du pays.

canado-américains

Affaires extérieures et commerce

1. L'Économie, les communications et les rela-

Les demandes de financement doivent étre présentées par des orga-
nismes canadiens constitués ou des parti-
culiers, lessquels doivent étre parallèles
exemple, less établissements d'enseignement
sociétés à but non lucratif sont admis-
sibles. On encourage les candidats à
obtenir des fonds d'autres sources que le
programme Sciences et Culture Canada.
Pour obtenir de plus amples renseil-
lages, les éditeurs, less associations et
ment, less éditeurs, less associations et
sociétés à but non lucratif sont admis-
sibles. On encourage les candidats à
obtenir des fonds d'autres sources que le
programme Sciences et Culture Canada.
Michael Straus
Ageant de programme
Sciences et Culture Canada
Direction des sciences et Services
Canada
Ottawa (Ontario) K1A 0S5
Téléphone : (619) 956-1772

au une seule proposition. Les de mandes de financement sont exami- nées deux fois par année et les éche- ances sont les 15 avril et 15 octobre. Financement de base général : des- tine aux projets et activités à long terme, d'une durée maximale de trois ans. Le financement de base est offert aux organismes dont l'obligation de permettre est de sensibiliser davantage l'opinion publique aux sciences et à la technologie. Les demandes de financement sont examinées annuelle- ment et l'échéance est le 15 avril. Financement de base pour l'élemen- t juneesse : il suffit d'allouer de la même manière que le financement général de base » sauf que le mandat principal consiste à susciter et à maintenir chez les jeunes Canadiens un intérêt pour les sciences et la technologie et à les sensibiliser à ces questions.

- Le Programme administre un budget de 2,5 millions de dollars et l'appui financier est réparti ainsi :
 - Financement des projets et d'activités dont la durée n'excède pas une année.
 - Les candidats ne peuvent présenter



Les archives du Bureau des brevets
contiennent la documentation la plus
complète au Canada en matière de ren-
seignements techniques. Plus d'un million

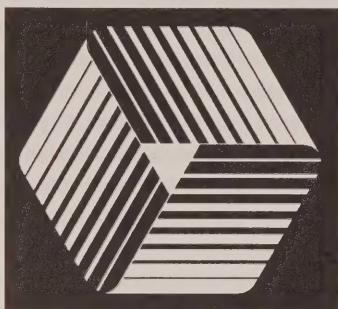
Cela vous étonne? Pourtant, les brevets constituent des ressources essentielles pour tous ceux qui veulent suivre les progrès technologiques. Chaque document contient une brève description d'une technique, l'histoire d'un problème et la façon dont la nouvelle invention permet de résoudre, une description précise de la manière de fabriquer l'invention et les dangers qui peuvent résulter de certains modèles d'emploi. On peut aussi retracer, par le document, le nom et l'adresse de l'inventeur et des contacts en vue de l'exploitation.

On peut se tenir au courant de l'actualité technologique en feuilletant des revues spécialisées dans le domaine, en participant à des conférences remisant les experts les plus réputés — ou encore en consultant les documents débrevets.

Au cœur de l'actualité technologique

Canada Corporations et les associations

Qui sont les principaux bénéficiaires de ce programme de subventions? Les groupes de chercheurs qui entreprennent des recherches multidisciplinaires sont privilégiés. Cependant, on considère également les propositions venant de chercheurs individuels, dans la mesure où



Aide à la recherche sur l'éducation et le travail

Conseil de recherches en sciences humaines du Canada

Sensibilisation au développement international

Le CCIAT fait publier les résultats des activités auxquelles il s'est livré avec ses partenaires. Les publications peuvent être consultées sur place ou encore expédiées aux personnes qui en font la demande. Les personnes intéressées peuvent faire des publications générales dont les coordonnées sont indiquées ci-dessus.

Site Laval, la Ville de Québec, Québec des ressources humaines du gouvernement du Québec et le Cégep Montmorency. Les résultats des études réalisées sur ces sites de recherche sont bénéfiques pour ces organisations et favorisent, en plus, l'établissement d'un modèle d'intervention basé sur les besoins. En fait, l'objectif est de donner aux intervenants l'occasion d'évaluer l'effet des changements technologiques sur leurs propriétés infrastructurales en identifiant les problèmes par catégories et types d'emplois demandés. Ensuite, l'objectif est de mesurer et en élaborant des outils de types d'emploi et en évaluant les résultats de mesures et de propagation du secteur privé, des différents domaines. Par exemple, on tente de mesurer les relations qui peuvent être apportées dans ce secteur à l'échelle régionale et des meilleures pratiques à l'utilisation de logiciels de conception pour la formation à distance et de la portée de la formation pour la formation, sans contrepartie, les fonctionnaires servent, dans le cadre de cette démarche de formation, pour le développement d'un système tutoriel intelligent. Il existe à permettre aux usagers qui sont des citoyens adaptés à cet effet. Les bénéfices de cette démarche sont évidents, pour le développement publiclique canadienne, porte sur le développement d'un autre projet de la Direction, qui fonction publique.
Si vous désirez en connaître davantage sur ce qui précéde, vous pouvez nous adresser à :
Jocelyne Picot
Centre canadien de recherche sur l'organisation du travail (Québec) H7X 2Z2
1575, boulevard Chomedey
Laval (Québec) H7X 2Z2
Telephone : (514) 682-3400

Vers une meilleure gestion de l'information

Communications Canada

